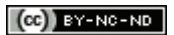


# Assessment of Knowledge, Attitude and Practice Regarding COVID-19 Pandemic among Health Care Professionals: A Cross-sectional Study

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## ABSTRACT

**Introduction:** Health care professionals are at greater risk of acquiring and subsequently transmitting Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) infection to their patients, families and colleagues. It is of utmost importance for them to have a knowledge about this Coronavirus Disease (COVID-19) and hence be in a position to practice infection prevention and control.

**Aim:** To assess the Knowledge, Attitude and Practice (KAP) among health care professionals regarding the COVID-19 pandemic.

**Materials and Methods:** This is a descriptive, cross-sectional study and was conducted in the month of April, 2020, among doctors and nurses. Total 164 health care professionals from the medical college hospital were included in the study. A 53-item survey questionnaire was developed to assess KAP among the health care professionals. Data analysis was done by using Epi info 7.2.1.0 version. Chi-square test was used to analyse variables as appropriate. A p-value of <0.05 was taken to be statistically significant.

**Results:** A total of 164 responses were collected and analysed. Doctors comprised 43.9% of the total study subjects while remaining

56.1% were nurses. Male to female ratio of the study subjects was 2:1. Fifty-eight percent informed that they had received training about infection control. In the present study, common source of information about COVID-19 was the internet, social media and television followed by newspaper, government sources and radio. Most of the Health Care Workers (HCWs) were aware of the mode of transmission of infection and common preventive measures. Incubation period was known to 95% of respondents. Only 48.9% of nurses thought that the mild form of disease was most common. Almost all believed that washing hands and wearing mask were important preventive measures. Around 60% of HCWs assumed that they knew the steps for wearing and removing Personal Protective Equipment (PPE), but very few could remember the exact sequence. Most of them felt that the disease was dangerous, however only 31% were scared to do hospital work. Both nurses and doctors practiced high levels of hand hygiene, cough hygiene and wearing face masks at the workplace.

**Conclusion:** This study highlights the level of existing KAP of COVID-19 among health care professionals. There is an urgent need to focus on training for correct use of PPE which can safeguard HCWs from contracting COVID-19.

**Keywords:** Coronavirus disease, Health workers, Personal protective equipment

## INTRODUCTION

COVID-19 manifests as an acute respiratory infection and is caused by the SARS-CoV-2. Infection by the virus resulted in a cluster of atypical pneumonia cases of unknown aetiology in Wuhan City, Hubei Province, China, since December 2019 [1]. COVID-19 presents as respiratory illness. The symptoms can vary from mild flu like illness to severe pneumonia. In few cases, it can progress to Acute Respiratory Distress Syndrome (ARDS) which can be fatal [2]. Since then, the outbreak has escalated rapidly, with the World Health Organisation (WHO) first declaring a public health emergency of international concern on 30 January 2020 and then formally declaring it a pandemic on 11 March 2020. By the end of April, the number of COVID-19, cases across the globe have crossed 3 million and more than 200,000 deaths have been reported [3]. In India, more than 30,000 cases have been diagnosed till now [4].

So far, no antivirals or vaccines are available against COVID-19. In such a scenario, public health measures which focus on infection control and prevention is of utmost importance. For any preventive measures to be effective, a comprehensive approach must be taken to ensure accurate health education of the public and the healthcare professionals. In recent weeks, many interventions, such as promotion of hand hygiene, respiratory etiquette, social distancing, and avoiding social gatherings have been emphasised by public health authorities [2].

Information regarding the disease and its prevention, has been spread to the masses via print media (newspaper), social media, radio, TV news channels, telephonic messages, and banners in public spaces. There have been regular updates by the WHO, local public health authorities and the medical fraternity to give best available information to control the spread of the disease. At the same time, there has been circulation of unreliable information on social media, which are accessed by health care professionals too. HCW are at great risk of acquiring and subsequently transmitting this lethal virus to their patients, families and colleagues. The hospitals should ensure that they are capable of practicing safely and provide patient care with all infection control measures. The psychosocial impact of the disease will affect attitudes of the workers towards the disease and the patients. Devastating epidemics can jeopardise the medical care provided by them in years to come. Hence, there is a need to study and assess KAP regarding the COVID-19 pandemic among health care professionals.

KAP study provides us with the information regarding how people think, know, feel and behave with regards to certain things [5]. The objective of the present study was to investigate the KAP of health care professionals with reference to the COVID-19 pandemic.

## MATERIALS AND METHODS

This was a cross-sectional descriptive study, done in the first week of April 2020 by the Department of Respiratory Medicine, Jaipur

National University Institute for Medical Sciences and Research Centre, Jaipur, India.

**Inclusion criteria:** Study participants were doctors (senior residents, junior residents, assistant professors, associate professors and professors) and staff nurses from all the departments of the medical college hospital, who gave consent to be a part of the study.

**Exclusion criteria:** Doctors and nurses who did not give consent and those who did not respond even after two visits were excluded from the study.

The sample size was calculated using a confidence level of 95%, margin of error 5%, response distribution of 50% and population size of 280. The sample size derived was 163. Questionnaire was distributed among 180 HCWs. The study received response from 164 participants making a response rate of 91.11% and strict protocol was followed to maintain the confidentiality of their response. The study was approved by the Institutional Ethics and Scientific Committee. (JNUIMSRC/IEC/2020/180, Jaipur).

Paper questionnaire were personally distributed to the participants who were approached on the basis of convenience and feasibility while on duty. They were encouraged to fill in the questionnaire honestly. The sheets were collected back in the same working shift, once it was completed. The questionnaire was standardised and well-constructed to assess the required objectives. The questions were framed as per guidance of the KAP survey methodology [5]. Previous articles on swine flu and Middle East respiratory syndrome (MERS) were reviewed [6,7]. Also, data from frequently asked questions about COVID-19 from WHO, and review article on COVID-19 were included to design the questions [2,8,9]. The proforma was prepared initially in English and then translated into Hindi, which is a local language. The questionnaire was pre-tested and tested. Questionnaire consisted of close ended questions. The questionnaire was divided into four parts. First part included demographic details of the participants, such as age, sex, qualification or job description, among other parameters. The second part included questions to assess the knowledge regarding the aetiology, epidemiology, pathogenesis, and clinical features of the disease. The third part dealt with infection control measures and prevention, which have to be followed in clinical practice or at the workplace. The fourth part contained questions for evaluation of attitudes of the individual towards the disease and its effects. Each question was scored as per the correctness of the response.

## STATISTICAL ANALYSIS

All data was entered in MS Excel spreadsheet. Analysis was done by using Epi info 7.2.1.0 version. Categorical variable was expressed as frequency and percentage. Statistical analysis like Chi-square test was used to analyse variables as appropriate. A p-value of <0.05 was taken to be statistically significant.

## RESULTS

A total of 164 responses from the study subjects were collected and analysed. [Table/Fig-1] shows the demographic details of the respondents. Doctors comprised 43.9% of the total subjects while remaining 56.1% were nurses. A 78.3% of the nurses were in the age group of 20-29 years. Male to female ratio in the study subjects was 2:1. Approximately, 58% informed that they had received training about infection control. Most of the subjects had received information from multiple sources. [Table/Fig-2] describe the knowledge of the study subjects. Most of the HCWs were aware of the mode of spread of infection and common preventive measures. 90% of doctors felt that touching an infected person does not spread infection. Most of the participants recognised ARDS, death and pneumonia as possible complications of COVID-19 (90%). Almost all believed that washing hands and wearing a mask are important preventive measures. Incubation period was known to 95% of respondents. Only 48.9% of nurses thought that

Characteristics studied	Row labels	Doctors (N=72)	Nurses (N=92)	Total (N=164)	p-value
Age group (years)	20-29	21 (29.2%)	72 (78.3%)	93 (56.7%)	<0.001*
	30-39	28 (38.9%)	16 (17.4%)	44 (26.8%)	
	40-49	5 (6.9%)	1 (0.1%)	6 (3.7%)	
	50-59	5 (6.9%)	3 (3.3%)	8 (4.9%)	
	60-69	13 (18.1%)	0	13 (7.9%)	
Gender	Female	22 (30.6%)	32 (34.8%)	54 (32.9%)	0.686
	Male	50 (69.4%)	60 (65.2%)	110 (67.1%)	
Duration of service	<2 years (Junior Resident)	18 (25%)	32 (34.8%)	50 (30.5%)	0.007*
	2-4 years (Senior resident)	20 (27.8%)	29 (31.5%)	49 (29.9%)	
	5-10 years	15 (20.8%)	25 (27.2%)	40 (24.4%)	
	>10 years	19 (26.4%)	6 (6.5%)	25 (15.2%)	
Training	Yes	32 (44.4%)	64 (69.6%)	96 (58.5%)	0.651
	No	40 (55.6%)	28 (30.4%)	68 (41.5%)	
Source of information	Social media	51 (70.8%)	63 (68.5%)	114 (69.5%)	0.771
	Television	50 (69.4%)	50 (54.3%)	100 (61%)	0.071
	Internet	58 (80.6%)	72 (78.3%)	130 (79.3%)	0.868
	Govt. Sources	52 (72.2%)	44 (47.8%)	96 (58.5%)	0.003*
	Newspaper	40 (55.6%)	58 (63%)	98 (59.8%)	0.418
	Friend and family	24 (33.3%)	30 (32.6%)	54 (32.9%)	0.945
	Radio	9 (12.5%)	19 (20.7%)	28 (17.1%)	0.243

**[Table/Fig-1]:** General characteristics of study subjects.

\*p<0.05 is considered to be statistically significant

mild form of disease is most common [Table/Fig-2]. The present study assess the attitude of HCWs towards the disease and its preventive measures [Table/Fig-3,4, 5]. Most of them felt that the disease is dangerous but only 31% were scared to do hospital work. More nurses believed that government institutions would be able to control the pandemic. [Table/Fig-5] mentions the existing practice among HCWs. Nurses were better in doing hand hygiene before wearing a face mask. Around 60% of HCWs assumed that they knew the steps for wearing and removing PPE, but only 8.9 % and 5.8% could remember the exact sequence of donning and doffing, respectively [Table/Fig-4].

## DISCUSSION

COVID-19 is a global pandemic and all the countries are fighting with this disease. Health care professionals like doctors and nurses are the most important front-line workers. It is important to know the knowledge and attitude of HCWs and also assess their practice. Hence, author's evaluated these important aspects by standardised questionnaire in this study.

Since COVID-19 is caused by a novel virus and the disease is new, most of the information about COVID-19 comes from alternative sources rather than medical textbooks. In this study, common sources of information were internet, social media and television, followed by newspaper, government sources and radio. It is easier to access information from the internet but there is a concern regarding the authenticity of the material available. There is a risk that HCWs will be exposed to malicious or false data which can result in wrong behaviour or practice. Hence, it is important for the health authorities to disseminate reliable information via these medium. This will play an important role in controlling infection.

In this study, only 58% admitted that they had received formal training. Hence, there is huge potential at the institutional level to conduct more training sessions among HCWs. This will prepare them to perform their duties more efficiently in this difficult time.

Despite less training, this study observed that study subjects had good knowledge regarding the mode of spread, symptoms, disease complications, incubation period, high-risk populations

Knowledge assessment		Doctors (N=72)	Nurses (N=92)	p-value
Mode of spread	Through respiratory droplets produced when a person sneezes or coughs	70 (97.2%)	88 (95.7%)	0.910
	Touching eyes, face and nose after contact with surfaces contaminated with virus particles	68 (94.4%)	89 (96.7%)	0.740
	Touching an infected person	59 (81.9%)	87 (94.6%)	<b>0.021*</b>
Symptoms	Cough, difficulty in breathing, chest pain and sore throat	72 (100%)	89 (96.7%)	0.337
	Fever, body ache	71 (98.6%)	85 (92.4%)	0.142
	Vomiting, loose stool	41 (56.9%)	44 (47.8%)	0.316
	Eye congestion, running nose	54 (75%)	60 (65.2%)	0.228
Possible complications	Respiratory failure (ARDS) and death	70 (97.2%)	89 (96.7%)	0.780
	Pneumonia	66 (91.7%)	70 (76.1%)	<b>0.015*</b>
	Neurological symptoms	15 (20.8%)	22 (23.9%)	0.779
	Shock (drop in BP) and renal failure	38 (52.8%)	34 (37%)	0.062
Preventive measures	Washing hands	72 (100%)	91 (98.9%)	0.902
	Wearing a face mask	71 (98.6%)	92 (100%)	0.911
	Avoid touching eyes, nose, and mouth	72 (100%)	91 (98.9%)	0.902
Others	Incubation period 1-14 days	69 (95.8%)	86 (93.5%)	0.755
	COVID-19 can be caught from a person who has no symptoms	65 (90.3%)	69 (75%)	<b>0.021*</b>
	Health care workers involved in care of COVID-19 patients, can catch infection from their patients	70 (97.2%)	88 (95.7%)	0.910
	Diagnosis of COVID-19 can be confirmed by laboratory testing of a respiratory sample (cough/ naso-oro-pharyngeal swab)	68 (94.4%)	82 (89.1%)	0.354
	Which body system does it affect the most (Respiratory system)	70 (97.2%)	89 (96.7%)	0.780
	Which form of disease is most common (Mild disease)	50 (69.4%)	45 (48.9%)	<b>0.013*</b>
	Which age group of people are more at risk of severe illness (>65 years)	72 (100%)	81 (88%)	<b>0.006*</b>
	Is there any vaccine available for protection against coronavirus infection (No)	61 (84.7%)	73 (79.3%)	0.497

**[Table/Fig-2]:** Knowledge of study subjects.

\*p<0.05 is considered to be statistically significant; ARDS: Acute Respiratory Distress Syndrome; BP: Blood pressure

Questions	Practices		Always	Some-times	Never	p-value
Coughing	Cover mouth and nose with tissue or handkerchief or elbow	Doctor	72 (100%)	0	0	0.201
		Nurses	88 (95.6%)	1 (1.1%)	3 (3.3%)	
	Throw away the used tissue into the dustbin	Doctor	69 (95.8%)	0	3 (4.2%)	0.306
		Nurses	90 (97.8%)	1 (1.1%)	1 (1.1%)	
	Turn your face from the surrounding people	Doctor	64 (88.9%)	3 (4.2%)	5 (6.9%)	<b>0.012*</b>
		Nurses	64 (69.6%)	11 (12%)	17 (18.5%)	
Washing hands	Before touching your eye and nose	Doctor	68 (94.4%)	3 (4.2%)	1 (1.4%)	0.231
		Nurses	91 (98.9%)	1 (1.1%)	0	
	After covering the nose while sneezing	Doctor	68 (94.4%)	2 (2.8%)	2 (2.8%)	0.637
		Nurses	87 (94.6%)	4 (4.3%)	1 (1.1%)	
	Before wearing a face mask	Doctor	66 (91.7%)	4 (5.6%)	2 (2.8%)	<b>0.019*</b>
		Nurses	92 (100%)	0	0	
Apply soap while washing your hands	Doctor	70 (97.2%)	2 (2.8%)	0	0.794	
	Nurses	90 (97.8%)	2 (2.2%)	0		
Wear face mask	When you are in hospital	Doctor	72 (100%)	0	0	0.922
		Nurses	91 (98.9%)	0	1 (1.1%)	
	When you are in public places	Doctor	71 (98.6%)	1 (1.4%)	0	0.061
		Nurses	83 (90.2%)	3 (3.3%)	6 (6.5%)	
	Do you change the facemask after using it once	Doctor	70 (97.2%)	2 (2.8%)	0	<b>0.011*</b>
		Nurses	84 (91.3%)	0	8 (8.7%)	

**[Table/Fig-3]:** Practices of study subjects.

\*p<0.05 is considered to be statistically significant

and treatment options. This finding is in contrast to the observation made by Bhagavathula AS et al., which was done in the first week of March 2020. Only 50% of HCWs were aware of the incubation period as compared to 95% in this study [10]. In another study by Huynh G et al., from Vietnam, only 60-70% of the HCWs were aware of the incubation period, treatment options and route of

Questions on PPE	Doctors (N=72)	Nurses (N=92)	p-value
Do you know the correct steps of wearing and removing PPE	42 (58.3%)	55 (59.8%)	0.978
Correct sequence for wearing PPE	9 (12.5%)	5 (5.4%)	0.185
Correct sequence of removing PPE	6 (8.3%)	3 (3.3%)	0.285

**[Table/Fig-4]:** Donning and doffing of Personal Protective Equipment (PPE) practice among study subjects.

Questions on attitude	Doctors (N=72)	Nurses (N=92)	p-value
Wash your hands more frequently	71 (98.6%)	89 (96.7%)	0.794
Follow infection control guidelines	69 (95.8%)	91 (98.9%)	0.448
Eat well and take care of your own health	70 (97.2%)	90 (97.8%)	0.794
Avoid going to crowded places or follow social distancing	71 (98.6%)	90 (97.8%)	0.830
Feel that the disease is dangerous	65 (90.3%)	90 (97.8%)	0.078
Scared of doing your hospital work	28 (38.9%)	23 (25%)	0.082
Worried about one of your family members getting infection	59 (81.9%)	75 (81.5%)	0.507
Transmission of COVID-19 can be prevented by standard public health measures, such as isolation, as advised by Ministry of Health & Family Welfare, Government of India and WHO, among others	67 (93.1%)	85 (92.4%)	0.889
Government institutions will be able to control the pandemic	47 (65.3%)	76 (82.6%)	<b>0.018*</b>
If a vaccine for COVID-19 is available, would you take it?	61 (84.7%)	86 (93.5%)	0.117
Interested in following the disease news	65 (90.3%)	92 (100%)	<b>0.008*</b>

**[Table/Fig-5]:** Attitude of study subjects.

\*p<0.05 is considered to be statistically significant

transmission [11]. The higher awareness in the present study might be due to better information availability in the last two months. As the number of cases is increasing in India, HCWs are getting more knowledgeable. There was no significant difference between

the knowledge of doctors and nurses except few aspects. For example, 19% of doctors assumed that they would not contract infection after touching an infected person, whereas this assumption was only 5% among nurses. This false presumption among some doctors could increase their risk of contracting disease from patients.

In this study, both nurses and doctors were aware of preventive measures, such as hand washing, wearing face masks and avoiding touching the eyes, nose, and mouth. This is similar to observations made by Khan MU et al., during the MERS-CoV epidemic [8]. It was also noted that doctors are better aware that the mild form of COVID-19 is the most common presentation and that the disease is more severe in case of elderly people more than 65 years of age.

Another important finding in the present study was that majority of HCWs had positive attitude towards the disease. They all admitted that they had seen increasing compliance with preventive measures in their practice. Many are worried about spreading the disease to their family members because of their hospital exposure. These findings are similar to the observation made by Huynh G et al., [11]. The high score on attitude in this study was possibly due to better knowledge among HCWs. It was also noted that doctors are less interested in newer information about the disease compared to nurses. This may be due to mental saturation from too much information received from various sources.

In this study, the authors also looked into the practices adopted by the study subjects while at work. Both nurses and doctors, practiced high levels of hand hygiene, cough hygiene and wearing face masks. This was reported to be 75% in a study done by Modi PD et al. In the same study, they looked into the use of PPE by HCWs and they found that three-fourth of respondents knew about correct use of PPE and use of N95 mask, indicating that the correct sequence of donning and doffing of PPE is equally important [12]. The practice of this aspect was lacking in the present study. Very few HCWs were aware of correct sequence of wearing and removing coverall PPE as recommended by WHO. This could be due to minimal exposure to handling suspected COVID-19 patients in a private teaching hospital as usually all patients are being referred to government run medical college hospitals.

## Limitation(s)

This was a single center study and does not correctly depict KAP of doctors and nurses working in various teaching, non-teaching, public and private healthcare centers of the whole country.

## CONCLUSION(S)

The study highlights the level of existing KAP among health care professionals with regard to COVID-19. Health authorities should utilise social media and internet to disseminate best available information and facts about COVID-19. There is an urgent need to focus on training for the correct use of PPE which can safeguard health care professionals from contracting COVID-19.

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## QUESTIONNAIRE

Do you give consent to participate in this study: Yes/No

Contact no.

### A) DEMOGRAPHIC DETAILS

1. Age:      2. Sex: Male/Female      3. Married/Unmarried:
4. Profession      5. Education level
6. Years of service      7. Department
8. Training on infection control: Yes/No
9. Availability of infection control guideline in the working department: Yes/No

### B) KNOWLEDGE ASSESSMENT

1. Have you heard about Corona virus infection: Yes/No
2. From where do you get most of the information about corona virus? (you can circle multiple option)
  - i. Social media
  - ii. Television
  - iii. Internet
  - iv. Government resources
  - v. Newspaper
  - vi. Friend or family
  - vii. Radio
  - viii. Other (please specify)
3. Which of the following are the potential modes of transmission of Corona virus?
 

	(Answer every option)	Yes	No	Don't know
a	via respiratory droplets produced when a person sneezes or coughs			
b	Touching eyes, face and nose after contact with surfaces contaminated with virus particles			
c	Touching an infected person			

4. What is the incubation period (this is the time between entry of virus in person body and onset of symptoms) (circle one option)
  - a. 1-7 days    b. 1-14 days    c. 1-21 days    d. 1-28 days
5. What are the symptoms of COVID-19
 

	(Answer every option)	Yes	No	Don't know
a	Cough, difficulty in breathing, chest pain and sore throat			
b	Fever, body ache			
c	Vomiting, loose stool			
d	Eye congestion, running nose			

6. Can the virus spread through air?

Yes/No/Don't know

7. Can CoVID-19 be caught from a person who has no symptoms?

Yes/No/ Don't know

8. Can health care workers involved in care of COVID-19 patients, catch infection from their patients?

Yes/No/Don't know

9. Can diagnosis of COVID-19 be confirmed by laboratory testing of a respiratory sample (cough/nasal oral pharyngeal swab)?

Yes/No/Don't know

10. Which body system does it affect the most? (circle one option)

- a. Central nervous system      b. Heart
- c. Respiratory system      d. Gastrointestinal system

11. Which form of disease is most common? (circle one option)

- a. Mild      b. Moderate      c. Severe

12. Which age group of people are more at risk of severe illness? (circle one option)

- a. Less than 5 years
- b. Less than 18 years
- c. 18-45 years
- d. more than 65 years.

13. Is there any vaccines available for protection against Corona virus infection:

Yes/No/Don't know

14. What are the possible complications of Corona virus infection?

	(Answer every option)	Yes	No	Don't know
a	Respiratory failure (ARDS) and death			
b	Pneumonia			
c	Neurological symptoms			
d	Shock (drop in BP) and renal failure			

### PRACTICE ASSESSMENT: QUESTIONS ON INFECTION PREVENTION

1. What all preventive methods do you practice?

	(Answer every option)	Yes	No	Sometimes
a	Washing hands			
b	Wearing a face mask			
c	Avoid touching eyes, nose, and mouth			

2. When coughing or sneezing

	(Answer every option)	Yes	No	Sometimes
a	Do you cover your mouth and nose with a tissue or handkerchief or elbow			
b	Do you throw away the used tissue into the dustbin			
c	Do you turn your face from the surrounding people			

3. Do you wash your hands

	(Answer every option)	Yes	No	Sometimes
a	Before touching your eye and nose			
b	After covering the nose while sneezing			
c	Before wearing a face mask			

4. Do you apply soap while washing your hands?

Yes/No/Sometimes

5. Do you wear a facemask

	(Answer every option)	Yes	No	Sometimes
a	When having fever, cough or a runny nose			
b	When you are in hospital			
c	When you are in public places			
d	Do you change the facemask after using it once			

6. While coming in contact with patients with suspected infection of Corona virus?

	(Answer every option)	Yes	No	Sometimes
a	You maintain appropriate distance			
b	You avoid touching and shaking hands			
c	Wear a face mask			
d	Wear a gloves when needed			

7. What all personal protective equipment will you use while taking care of patients with COVID-19? (Choose one option)
    - a. Handkerchief, sanitiser, facemask, shoes
    - b. Facemask, Cap, Eye protection shield, Gowns, Gloves, Shoe cover
    - c. Gloves and surgical mask
    - d. Caps and facemask
  8. What is the sequence of wearing PPE? (number the steps as 1 to 8)
 

a. Hand hygiene	b. 1 <sup>st</sup> pair of gloves
c. Wear coverall suit	d. wear shoe cover
e. wear N-95 mask	f. wear the hood
g. eye goggle	h. Face shield
i. 2 <sup>nd</sup> pair of gloves	
  9. What is the sequence of removing PPE?
 

a. remove the outer pair of Gloves	b. Remove the shoe cover
c. remove face shield	d. remove Eye goggles
e. Remove coverall suit	f. Remove hood
g. remove N 95 Face mask	h. remove inner pair of gloves
i. wear a new pair of glove	
  3. Is the disease dangerous?  
Yes/No/Don't know
  4. Are you scared of doing your hospital work?  
Yes/No
  5. Are you worried about one of your family members can get infection?  
Yes/No
  6. Can transmission of covid-19 be prevented by using standard and isolation precautions given by Ministry of health and family welfare, India and WHO etc?  
Yes/No/Don't know
  7. Do the government institutions able to control the pandemic?  
Yes/No/Don't know
  8. If vaccine for Corona is available, would you take it?  
Yes/No/Don't know
  9. Are you Interested in following the disease news?  
Yes/no
- We have now reached the end of the survey. Thank you for taking the time to answer our questions.

**ASSESSMENT OF ATTITUDE**

1. Is Hand hygiene important in prevention of COVID-19 infection:  
Yes/No/Don't know
2. After becoming aware of spread of corona virus infection in India or world

	(Answer every option)	Yes	No	Sometimes
a	Do you wash your hands more frequently than before			
b	Do you follow infection control guidelines			
c	Eat well and take care of your own heath			
d	You avoid going to crowded places or follow social distancing			